

BELKINA, N.P., kand.med.nauk:

Injury to the heart from a foreign body in the esophagus. Vest.  
otorin. 22 no.1:95-96 Ja-F '60. (MIRA 14:5)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta po  
boleznyam ukha, gorla, nosa i rechi (dir. - prof. I.A.Lopotko,  
nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR V.I.Voyachek).  
(ESOPHAGUS—FOREIGN BODIES)  
(HEART—WOUNDS AND INJURIES)

BELKINA, P.N., kand.med.nauk

Eosinophilic granuloma of the temporal bone. Vest.otorin. 21  
no.4:87-88 J1-Ag '59. (MIRA 12:10)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta po  
boleznyam ucha, gorla, nosa i rechi (dir. - prof.I.A.Lopotko,  
nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR V.I.  
Voyachek).

(EOSINOPHILIC GRANULOMA)

(TEMPORAL BONE dis.)

ARTEMOVA, L.; BELKINA, R.; VINOKUR, R.

"Financing and supplying credit for capital investments" by P.D. Podshivalenko, I.D.Sher, and others. Reviewed by L.Artemova, R.Belkina, R.Vinokur. Fin. SSSR 22 no.11:88-90 N '61.

(MIRA 14:11)

(Banks and banking) (Construction industry--Finance)  
(Poschivalenko, P. D.) (Sher, I. D.)

BELKINA, R.; ZAK, A.

Finances of house-building combines. Fin.SSSR 37 no.3:34-37  
Mr '63. (MIRA 16:4)

(Construction industry--Finance)

BEIKINA, R.A.

One-roller method of obtaining half shades on multicolor printed portions of fabric. Obm. tekhn. opyt. [MLP] no.9:16-17 '56.

(MIRA 11:10)

(Textile printing)

BELKINA, R.K., kand.ekonom.nauk, starshiy nauchnyy sotrudnik

Improving regulations for making estimates and their standardization in the construction industry. Trudy MIEI no.14:531-546 '59. (MIRA 13:1)

1. Nauchno-issledovatel'skiy institut Ministerstva finansov SSSR.

(Building--Estimates)

BELKINA, R.K.

Increase control over estimated construction costs. Fin.SSSR 20  
no.3:36-41 Mr '59. (MIRA 12:7)  
(Building--Estimates)

BEIKINA, R. K.

Establishing norms for working capital in sub contracting organizations. Fin. SSSR 21 no.12:11-15 D '60. (MIRA 13:12)  
(Construction industry--Finance)



BELKINA, Revekka Konstantinovna; RYUMIN, S.M., otv. red.; NADEZHDINA, A.,  
red, izd-va; TELEGINA, T., tekhn. red.

[Working capital of contracting construction organizations] Obo-  
rotnye sredstva podriadnykh stroitel'nykh organizatsii. Moskva,  
Gosfinizdat, 1962. 186 p. (MIRA 15:12)  
(Construction industry—Finance)

IKONNIKOV, V.V., prof.; VASIL'YEV, P.G., ,and, ekon.nauk; LAVROV, V.V., prof.; RYUMIN, S.M.; KOLYCHEV, L.I., kand. ekon. nauk; SAMOYLOV, V.K.; LYSKOVICH, A.A.; KOLOMIN, Ye.V., kand. ekon. nauk; MITEL'MAN, Ye.L., kand. ekon. nauk; BEL'KINA, R.K., kand. ekon. nauk; SHTEYNHLEYGER, S.B., kand. ekon. nauk; ROTLEYDER, A.Ya., kand. ekon. nauk; POGODIN, Yu., red.; TELEGINA, T., tekhn. red.

[Finance and credit in the U.S.S.R.] Finansy i kredit SSSR.  
Moskva, Izd-vo "Finansy," 1964. 447 p. (MIRA 17:3)

BEIKINA, S.S.; MOISEYEV, A.A., doktor tekhn.nauk, prof., red.; MISHKEVICH,  
G.I., red.; LEVOCHKINA, L.I., tekhn.red.

[English-Russian dictionary of shipbuilding and marine engine  
building] Anglo-russkii slovar' po sudostroeniiu i sudovomu  
mashinostroeniiu. Leningrad, Gos. soiusnoe izd-vo sudostroit.  
promyshl., 1958. 573 p. (MIRA 11:5)

(Shipbuilding--Dictionaries)

(Marine engineering--Dictionaries)

(English language--Dictionaries--Russian)

BELYANCHIKOV, V.N., inzh.; NOVIKOV, I.V., inzh.; ZAYTSEV, L.Ye.,  
inzh.; AKIL'YEV, S.A., inzh.; BELKIN, V.A., inzh.;  
POCHKINA, L.A., inzh.; VASIL'YEV, O.A., inzh.; Prinimali  
uchastiye: KOPEYKINA, O.P.; SMIRNOVA, A.N.; BELKINA, S.S.;  
SHILINA, Ye.I.; LAGUNOV, Ye.N.; REZNIK, S.Z.; ERISMAN,  
B.I.; KUZ'MINYKH, A.A., red.; SHIRKOVA, R.Ye.,  
tekhn. red.

[Operational life of parts of excavating, construction,  
and road machinery; a reference catalog] Sroki sluzhby de-  
talei ekskavatorov, stroitel'nykh i dorozhnykh mashin,  
katalog spravochnik. Izd.2., perer. i dop. Moskva, Gos-  
lesbumizdat. Pt.2. [Road, construction machinery, and  
machinery for manufacturing building materials] Dorozhnye,  
stroitel'nye mashiny i mashiny dlia proizvodstva stroitel'-  
nykh materialov. 1963. 306 p. (MIRA 17:4)

1. "Stroitiyazhmashzapchast'," Tekhnicheskaya kontora. Kon-  
struktorskoye byuro.

LUKINOV, M. I., inzh.; BELKINA, S. Ya., inzh.

Standard plans of shops and plants for brickmaking for rural  
construction. Stroi. mat. 8 no.9:13-15 S '62.

(MIRA 15:10)

(Brickmaking machinery)

ACCESSION NR: AP4043330

S/0191/64/000/008/0064/0067

AUTHOR: Belkina, T. M.; Zaby\*rina, K. I.; Limova, I. G.; Fromberg, M. B.

TITLE: Adhesives for film-coated electrical insulating board

SOURCE: Plasticheskiye massy\*, no. 8, 1964, 64-67

TOPIC TAGS: coating, adhesive, electrical insulation, insulating board, triacetate, polyethylene terephthalate, polyethylene, glyceroterephthalate, polyglycerophthalate, castor oil, Rezyl, acrylonitrile resin SKN-40, polyvinylformalethylal VL-7, alkydemelamine MGM-8, ethyl alcohol, toluene, acetone, bonding strength, alkydemelamine ML-92, polymer adhesive, polymer solubility, polyethylene film, silicic acid ester

ABSTRACT: The mechanical and dielectric properties of triacetate and polyethylene terephthalate films used for coating electrical insulating boards are tabulated and compared. For bonding polyethylene terephthalate films to electrical insulating boards, polymers such as polyethylene glyceroterephthalate, polyglycerophthalate modified with castor oil (Rezyl) and acrylonitrile resin SKN-40 dissolved in acetone or in a 1:1 mixture of alcohol and acetone, with different modifiers, were tested. Commercial lacquers such as polyvinylformalethylal VL-7 and alkydemelamines MGM-8 and ML-92 were also tested, using an electric adhesiometer on 5-mm-wide coated strips. The adhesive was applied to

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ACCESSION NR: AP4043330

the cardboard in a thin layer and dried for 3-4 min. at 90C before the polymer film was applied to it; the sample was then kept under a pressure of 15-20 kg/cm<sup>2</sup> at 90 + 5C. The highest bonding strength was obtained with the Rezyl resin 90, modified with the ethyl ester of o-silicic acid. A plot of the stability of the Rezyl compositions against the content of the ethyl ester of o-silicic acid showed that the gelatinization time of Rezyl diminishes considerably with increasing ester content. The viscosity of bonding compositions with different solvents was plotted against storage time at 20 + 5C. Stable compositions were obtained by dissolving them in a mixture of alcohol and toluene (1 : 1) or ethyl alcohol-toluene-acetone (1:1:1). They remained stable for 6 months during which time their viscosity remained almost unchanged. The Rezyl adhesive modified with the ethyl ester of o-silicic acid (23-7) applied to metal showed high heat-stability and very good electrical characteristics, which did not change significantly in a humid atmosphere. The characteristics of the composition 23-7 and those of the bonded insulating board are listed. Orig. art. has: 2 figures, 2 tables and 1 chemical equation.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 000

OTHER: 003

Card 2/2

I, 00752-66 EPA(s)-2/ET(m)/EFF(e)/LWP(j)/T

ACCESSION NR: AP5020974

UR/0190/65/007/008/1456/1462

AUTHOR: Andrianov, K. A.; Fromberg, M. B.; Belkina, T. M.

TITLE: Synthesis of trifunctional crosslike ester acids and of polyesters having a regular lattice structure

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 8, 1965, 1456-1462

TOPIC TAGS: ester, polyester plastic, polycondensation, adipic acid, dielectric loss, synthesis, polymer structure

ABSTRACT: Trifunctional ester acids were synthesized by reacting trimethylol-ethane or trimethylolpropane with a two-fold excess of adipic, azelaic or sebacic acid. Their properties were determined. The kinetics of the polycondensation of trimethylol-ethane and adipic acid in 1:1.5 and 1:6 ratios were investigated. In the first case the reaction is of the second order and in the case with excess adipic acid the reaction is first order. The reaction rate constants and the energy of activation of these polycondensations were calculated:  $E = 20,600 \text{ cal/mol}$

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ACCESSION NR: AP5020974

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(1:1.5 reactants), and 27,900 cal. mol (1.6). From this it was deduced that the reactant ratio, and not reaction temperature, determined whether ester acids of fixed structure, or branched polyesters which converted to insoluble 3-dimensional products, were formed. The trimethylolethanetriadipinate was condensed with the diglycidyl ether of di-p-hydroxydiphenylpropane. The effect of polymer structure on dielectric losses was investigated. In the regular lattice polymer  $\text{tg } \delta$  was less temperature dependent than in polymers having the same composition but an irregular structure. Orig. art. has: 2 figures, 2 tables and 4 equations.

ASSOCIATION: Elektrotekhnicheskiy institut im. V. I. Lenina (Electrotechnical Institute) 44, 66

SUBMITTED: 08Oct64

ENCL: 00

SUB CODE: GC, OC

NR REF SOV: 002

OTHER: 003

Card 2/2

BELKINA, T.M.; ZABYRINA, K.I.; LIMOVA, I.G.; FROMBERG, M.B.

Adhesive compositions for film electric insulation cardboard.  
Plast. massy no.8:64-67 '64.

(MIRA 17:12)

ACCESSION NR: AP4043820

S/0303/64/000/004/0019/0021

AUTHOR: Belkina, T. M., Zaby\*rina, K. I., Limova, I. G., Fromberg, M. B.

TITLE: Binder coatings for mica insulation tapes, based on modified epoxy resins

SOURCE: Lakokrasochny\*ye materialy\* i ikh primeneniye, no. 4, 1964, 19-21

TOPIC TAGS: electric insulation tape, mica insulation tape, tape binder coating, tape saturation coating, modified epoxy resin, resin ED-6, resin E-40, polyester amide resin, binder coating insulating property, binder coating thermal stability, binder coating synthesis

ABSTRACT: The authors synthesized binders for synthetic mica insulation tapes intended for prolonged operation at 155C (heat resistance class F). The compositions were formulated from epoxy resins ED-6 or E-40 and polyester amide resins obtained by polycondensation of adipic acid, synthetic fatty acids, phthalic anhydride, glycerol and monoethylaniline. Tetraethoxysilane was used as the hardening agent. The hardening process is presented schematically and authors conclude that it represents a reaction between tetraethoxysilane and hydroxyl groups of the epoxy resin or the polyester, sometimes including a reaction between hydroxyl groups of the epoxy resin and alkoxy groups of the tetraethoxysilane. The synthesized coating retained viscosity of  $\sim 40$  sec. over pro-

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ACCESSION NR: AP4043820

longed periods at an epoxy-polyester ratio of 100:40. Bonding capacity was best at 28.6% epoxy content. Saturation compounds and binders should contain 20-25% and 48-52% resin, respectively. Weight loss did not exceed 20-25% and bonding capacity remained at 25-30 kg over 30 days of heat aging. Thermal elasticity was 15-20 hrs. at 180C and up to 600 hrs. at 150C. Volume resistivity and dielectric strength values are also tabulated. "The mica insulation tape was prepared by O. M. Il'ina." Orig. art. has: 2 tables, 3 graphs and 1 chemical flow chart.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 002

OTHER: 004

Card

2/2

BELKINA, Ye.

Production-mass work with employees in a Soviet agency. Sov.  
profsoiuzy 7 no.15:51-53 Ag '59. (MIRA 12:12)

1. Predsedatel' profbyuro pensionnogo upravleniya Ministerstva  
sotsial'nogo obespecheniya RSFSR.  
(Trade unions)

RITENKO, G.T.; BELIKINA, Ye.A.  
~~SECRET~~

Seminar on problems of industrial hygiene, city planning, and control of air pollution. Gig. sanit., Moskva no. 1:56-57 Jan 1953.  
(GLML 24:2)

BELKINA, Ye. S.

"The intonation of basic communication types in Indonesian."

report submitted for 5th Intl Cong of Phonetic Sciences, Muenster, W. Germany,  
16-23 Aug 64.

BELKINA, Yu.

New modification of the reaction for detecting aldehyde groups with  
silver oxide. Uch.zap. MOPI 84:191-193 '59. (MIRA 14:9)  
(Aldehydes) (Silver oxide)



IOVENKO, Nikolay Grigor'yevich; KEKUKH, A.M., nauchnyy sotrudnik;  
BEIKINA, Z.A., red.; BRAYNINA, M.I., tekhn.red.

[Hydro-physical properties and water balance of soils in the  
U.S.S.R.] Vodno-fizicheskie svoistva i vodnyi rezhim pochv  
USSR. Pod red. A.M.Kekukha. Leningrad, Gidrometeor.isd-vo,  
1960. 351 p. (MIRA 14:1)

1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy  
institut (for Kekukh).  
(Soil moisture)

BELKINA, Z. P.

"Investigation of the Effect of Increased Oxygen Content on the Operation of an Aircraft Engine." Sub 6 Jun 47, Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

23354S/058/61/000/006/041/063  
A001/A101

9,3120(1003, 1138, 1331)  
AUTHOR: Belkind, A.I.

TITLE: On electron emission from NaCl roentgenized crystals

PERIODICAL: Referativnyy zhurnal. Fizika, no. 6, 1961, 329-330, abstract 6Zh4  
("Tr. In-ta fiz, 1 astron. AN EstSSR", 1960, no. 12, 241-248, Engl.  
summary)

TEXT: This is a discussion of the results of a comprehensive investigation of electron emission from NaCl crystals. The following phenomena were simultaneously measured: thermal decoloration and thermionic emission, as well as thermal luminescence, thermal optical luminescence, thermionic emission and photothermoemission. There are 13 references.

[Abstracter's note: Complete translation]

Card 1/1

20839

9.4160  
9.4175

S/048/61/025/003/028/047  
B104/B202

24,3500 (1138, 1153, 1395)

AUTHORS: Belkind, A. I. and Kyaembro, Kh. F.

TITLE: Photo- and thermostimulated electron emission from alkali halide crystal phosphors excited by ultraviolet radiation

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 3, 1961, 381-383

TEXT: This paper was presented at the 9th conference on luminescence (crystal phosphors), Kiyev, June 20 to 25, 1960. Already in earlier papers the authors used electrical methods instead of absorption and luminescence methods when investigating the mechanism and the kinetics of physical processes causing luminescence and color centers for alkali halide crystals. In these studies the KBr, KCl, NaCl, KBr-Tl, KCl-Tl, and NaCl-Tl crystal phosphors were excited by means of ultraviolet radiation of an Al spark discharge whose individual lines were separated by means of a monochromator. In accordance with western data the contour of the excitation spectrum of the emission of a KBr crystal differs from that of the F-absorption bands, however, it increases into the direction of shorter

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S/048/61/025/003/028/047

B104/B202

Photo- and thermostimulated electron...

waves with  $h\nu \approx 1.6$  ev. When determining the effect of de-excitation of the visible light on the emission of a photo-excited KBr crystal it was found that photoemission was caused by the F-centers. This is proved by the hypothesis of the direct optical ejection of an electron from the F-center into the vacuum. As may be seen from Fig. 1 the contour of a short-wave activator absorption band is observed in a KCl-Tl phosphor in the spectrum of photostimulated emission and also in the photostimulated F-luminescence band. These activator absorption bands correspond to the  $^1S_0 \longrightarrow ^1P_1$  transitions in the  $Tl^+$ -ions. Also the phosphorescence spectrum has the same form. Hence, direct electric measurement data are available on the recombination mechanism of phosphorescence in the KCl-Tl phosphorus. After excitation of an NaCl-Tl phosphor by means of ultraviolet light in the shortwave activator band also a thermostimulated electron emission can be observed (Fig. 2). The authors found that the stages of thermal decoloration at 420, 440, and 520°K are accompanied by electron emission. The authors infer a surface-type emission and a volume-type absorption from the fact that the stages of thermal decoloration at low temperatures are not accompanied by emission. The close rela-

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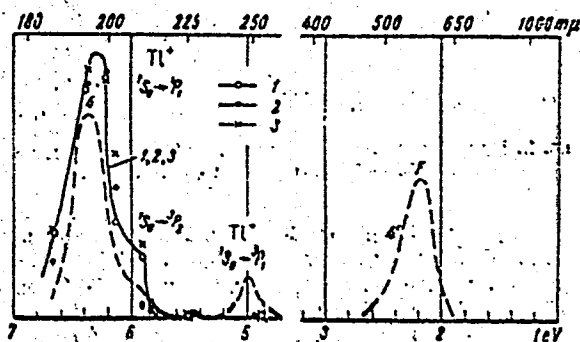
Photo- and thermostimulated electron...

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S/048/61/025/003/028/047  
B104/B202

tion between the maximum of thermostimulated electron emission and thermal decoloration indicates the recombination character of phosphorescence in alkali halide crystals. M. Elango and Ch. B. Lushchik and mentioned. There are 2 figures and 10 references: 5 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut fiziki i astronomii Akademii nauk ESSR (Institute of Physics and Astronomy of the Academy of Sciences Estoniskaya SSR)

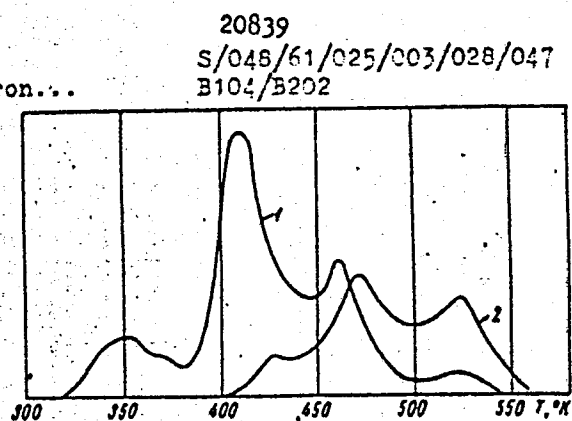
Legend to Fig. 1: excitation spectrum of photostimulated electron emission (1), of photostimulated F-luminescence bands (2) and of phosphorescence (3) in a KCl-Tl single crystal. (4) Absorption spectrum and (4') excited absorption spectrum of the same phosphor after exposure to Al-emission



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Photo- and thermostimulated electron...

Legend to Fig. 2: thermal  
decoloration (1) and thermo-  
stimulated electron emission  
(2) of an NaCl-Tl single crystal  
excited by Al-emission.



Card 4/4

ACCESSION NR: MT3013096

S/2613/62/000/021/0287/0289

AUTHOR: Belkind, A. I.

TITLE: Photostimulated electron emission from complex color centers

SOURCE: AN EstSSR. Institut fiziki i astronomii. Trudy\*, no. 21, 1962, 287-289

TOPIC TAGS: color center, electron emission, f band, short wave length

ABSTRACT: Photostimulated electron emission (PEE) from complex color centers, originating in NaCl at room temperature, has been studied. The crystal was grown by the Kiropoulos method and colored through undecomposed Al-flash light. In the F-band region (400-600 m $\mu$ ) measurements on PEE intensity indicate a monotonic growth towards short wave lengths, whereas (in the region 650-800 m $\mu$ ) a small maximum is observed around 725-730 m $\mu$ . It is thought that a change in PEE with F-centers caused by a change in complex color centers (N-centers) may be due to the effect of secondary electron localization on capture levels. Orig. art. has: 1 figure.

ASSOCIATION: AN EstSSR. Institut fiziki i astronomii (AN EstSSR. Institute of Physics and Astronomy)

Card ~~2/2~~



L 41134-65 EWT(1)/EWT(a)/EPF(c)/EPF(n)-2/T/EEC(b)-2 P-4/PI-4/Pu-4 IIS(c)

ACCESSION NR: AT5000400

GG

S/3119/64/000/001/0069/0072

AUTHOR: Belkind, A.I., Kalendarov, R.I.

TITLE: Effect of ionizing radiation on photostimulated emission from NaCl and KCl crystals

SOURCE: AN LatSSR. Institut fiziki. Radiatsionnaya fizika, no. 1, 1964. Ionnyye kristally\* (ionic crystals), 69-4

TOPIC TAGS: ionizing radiation, photostimulated emission, alkali halide crystal, color center, ultraviolet irradiation, lattice vacancy

ABSTRACT: The paper presents the initial results of an investigation of the growth of F-centers under the influence of ultraviolet radiation, as studied by the method of photostimulated emission (PSE). Natural NaCl and grown NaCl and KCl crystals were used. The source of ultraviolet light was a condensed aluminum spark. The process of coloration of the crystals by the spark was studied chiefly by means of the change in the PSE signal stimulated at the maximum of the F absorption band (465 mμ for NaCl and 560 mμ for KCl). The strong influence of preliminary x-irradiation followed by decolorization on the maximum value of PSE is attributed to an increase in the number of free vacancies during

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L 41134-65  
ACCESSION NR: AT5000400

these two processes. The initial results presented in the paper show the promise of the PSE method, a phenomenon related to the properties of the surface layer of a crystal. Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki AN Lat. SSR (Physics Institute, AN Lat. SSR)

SUBMITTED: 18Mar64

ENCL: 00

SUB CODE: OP

NO REF SOV: 004

OTHER: 008

ird

2/2

L 21793-65 EWT(1)/EEC(b)-2 SSD(c)/ASD(a)-5/AS(mp)-2/AFTC(a)/ESD(t)/IJP(c)

ACCESSION NR: AT5000399

S/3119/64/000/001/0051/0068

AUTHOR: Belkind, A.I., Nagli, J. Ye.

TITLE: Photostimulated emission from colored NaCl and KCl crystals

SOURCE: AN LatSSR. Institut fiziki. Radiatsionnaya fizika, no. 1, 1964. Ionny\*ye  
kdristally\* (ionic crystals), 51-68

TOPIC TAGS: alkali halide crystal, colored crystal, radioemission, ultraviolet irradiation, Xray, photostimulated emission, electron emission, color center

ABSTRACT: The influence of ultraviolet and x-rays on the stimulation spectrum of photostimulated emission from natural and artificial NaCl and KCl single crystals was investigated. The crystals were colored by the undecomposed light of an aluminum spark or by x-rays from a tube with a copper anticathode (55 kV, 10 mA). The study showed that the photostimulated electron emission (PSE) in the region of the F absorption band is chiefly determined by the photothermoemission mechanism. The difference in the stimulation spectra was found to be related to the distribution of the density of color centers as a function of depth. This distribution determines the relative part played by the various PSE

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L 21793-65

ACCESSION NR: AT5000399

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mechanisms, an analysis of which is given. PSE from M color centers was observed in KCl crystals, and the influence of these centers on PSE in the region of the F-band was demonstrated. "The authors express their deep appreciation to Ch. B. Lushchik for suggesting the topic and supervising the work, to A. N. Arsen'yev-Geyl', I. K. Vitol, K. K. Shvaris, and Kh. F. Kyaembre for very helpful discussions of the problems treated in the paper, and to R. I. Kalendarev for assistance in carrying out the experiments." Orig. art. has: 10 figures, 12 formulas, and 2 tables.

ASSOCIATION: Institut fiziki AN Lat. SSR (Physics Institute, AN Lat. SSR)

SUBMITTED: 18Mar64

ENCL: 00

SUB CODE: OP

NO REF SOV: 028

OTHER: 042

Card 2/2

D 49275-65 EWT(1)/EWT(m)/T/EMP(t)/EEC(b)-2/EMP(b) Pi-4 IJP(c) JD/JG/GG  
 ACCESSION NR: AP5009525 8/0048/65/029/003/0466/0468

AUTHOR: Belkind, A.I.; Kyaambre, Kh. F.

TITLE: Concerning two mechanisms of photostimulated electron emission from ionic crystals /Report, 12th Conference on Luminescence held in L'vov, 30 Jan-5 Feb 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 3, 1965, 466-468

TOPIC TAGS: photoelectric emission, color center, alkali halide, single crystal

ABSTRACT: The authors recall their earlier experimental <sup>2/</sup>work on photostimulated electron emission from colored alkali halide crystals (Tr. in-ta fiz. i astron. AN EstSSR, No.14, 247 (1961); No. 21, 173, (1962); Sb. Fizika shchelochnogaloidnykh kristallov, p. 380, Riga, 1962; Radiatsionnaya fizika tverdogo tela, p.51, Riga, 1964; Tr. In-ta fiz. i astron. AN EstSSR, No.21, 237, (1962)), and briefly discuss some of the results in terms of the following two mechanisms: 1) Photoionization emission - an F center is directly ionized by the incident photon with the emission of an energetic electron, and 2) Photothermal emission - an F center is excited by the incident photon to the 2<sub>p</sub> level, is subsequently thermally ionized, and the resulting electron is thermally ejected from the crystal. These mechanisms lead to

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ACCESSION NR: AP5009525

different types of stimulation spectrum, both of which have been observed. Which mechanism predominates in a given case depends on many factors, including the diffusion length of a thermal electron, the distance an energetic electron can travel in the crystal before losing its energy, the thickness of the colored layer, and the electron affinity in the crystal. The authors are very grateful to Ch. B. Lushchik for discussing the results. Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki Akademii nauk SSSR (Institute of Physics, Academy of Sciences, SSSR); Institut fiziki i astronomii AN EstSSR (Institute of Physics and Astronomy, AN EstSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: OP, SS

NR REF SOV: 004

OTHER: 013

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Card 2/3

L 39/01-65 EEC(b)-2/EPF(o)/EPF(n)-2/EMT(l)/EMT(n)/EMP(b)/T/EMP(t) PI-L/PR-L/  
PI-L TJP(c) GO/JD

ACCESSION NR: AP5005526

S/0048/65/029/003/0469/0471

AUTHOR: Belkind, A. I.

TITLE: Effect of radiation on photostimulated emission from alkali  
halide crystals Report, Twelfth Conference on Luminescence held in L'vov  
30 Jan-5 Feb 1964

SOURCE: AN SSSR. Izvestiya. Soriya fizicheskaya, v. 29, no. 3, 1965, 469-471

TOPIC TAGS: alkali halide, sodium chloride, color center, photostimulated  
emission, x ray irradiation, radiation damage

ABSTRACT: The author investigated the formation of F centers in NaCl by  
70 kv x-rays filtered through 1 ms of NaCl and the accompanying increase in the  
photostimulated emission in order to determine whether the latter effect can be  
employed to investigate the former. The curves of F center concentration and  
photostimulated emission current (stimulated by F band radiation) versus x-ray  
dose were found to be very similar in shape and to consist of a rapidly rising  
initial portion (ascribed to the formation of F centers from vacancies initially  
present in the crystal) followed by a less rapidly rising section. Analysis of

Card 1/2

L 39701-65

ACCESSION NR: AP5009526

the curves showed that proportionality was maintained between the F center concentration and the photostimulated emission, and that no significant formation of anion vacancies occurred within a  $10^4 \text{\AA}$  thick surface layer. It is concluded that photostimulated emission can be used for study of color center formation processes. Orig. art. has: 1 formula, 1 figure, and 1 table. (C2)

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: SS, NP

NO REF SOV: 002

OTHER: 003

ATD PRESS: 3230



L 60341-65 EWT(1)/T/EEC(b)-2 P1-4 IJP(c) CC

ACCESSION NR: AT5013549

UR/2613/64/000/026/0226/0228

AUTHOR: Belkind, A. I.

TITLE: Photostimulated emission from KCl-Ag crystals

SOURCE: AN EstSSR. Institut fiziki i astronomii. Trudy, no. 26, 1964. Issledovaniya po lyuminetsentsii (Research on luminescence), 226-228

TOPIC TAGS: photostimulated emission, electron emission, potassium chloride crystal, silver activation, thermal emission, color center

ABSTRACT: The author attempted to observe photostimulated emission from an electronic capture center produced by an activator. The object chosen was single-crystal KCl-Ag, in which various color centers are produced upon exposure to ionizing radiation. Attention was focused on the E center, the main absorption band of which is in the visible part of the spectrum (~ 432 nm). The photostimulated emission was measured with a set-up described earlier (with L. Ye. Nagli, Fizika radiatsionnykh yavleniy [Physics of Radiation Phenomena], Riga, 1964). The absorption was measured with a spectrophotometer. X-rays and ultraviolet rays were used for the ionization. The spectra exhibit a maximum which coincides, within the limits of experimental accuracy, with the absorption maximum of the E centers, thus indicating that photostimulated emission from the E centers takes place. The re-

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L 60341-65

ACCESSION NR: AT5013549

ults also show that the energy absorbed by the crystal can be transmitted both to the main substance and to the silver ions. The faster formation of E centers compared to F centers is due to the fact that the silver ion has a large effective cross section for electron capture. It is concluded that in principle it is possible to observe photostimulated emission in alkali-halide crystals from arbitrary capture centers whose ionization can be stimulated optically, and that photostimulated emission can be used to investigate activator capture centers. Orig. art. has: 1 figure.

ASSOCIATION: Institut fiziki i astronomii AN EstSSR (Institute of Physics and Astronomy, AN EstSSR)

SUBMITTED: 23Feb64

ENCL: 00

SUB CODE: SS, OP

NR REF SOV: 007

OTHER: 008

Card 2/2 *OP*

L 01827-67 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/JG/GG

ACC NR: AP6030948 SOURCE CODE: UR/0181/66/008/009/2532/2535 46

AUTHOR: Belkind, A. I. ; Kalendarev, R. I. ; Berdichevskaya, G. Yu. 39

ORG: Institute of Physics AN LatvSSR, Riga (Institut fiziki) B

TITLE: Comprehensive investigation of nonisothermal relaxation processes in  
alkali-halide crystal phosphors

21 SOURCE: Fizika tverdogo tela, v. 8, no. 9, 1966, 2532-2535 2

TOPIC TAGS: nonisothermal relaxation, alkali halide crystal phosphors,  
luminescence, discoloration, photoluminescence, thermal electron emission,  
photoelectron emission, relaxation combine, thermal disintegration, electron  
color center

ABSTRACT: A comprehensive study was made of nonisothermal relaxation  
processes in NaCl-Tl, KCl-Ag, and KCl-Tl alkali-halide crystal phosphors.  
Thermally induced luminescence, thermally induced discoloration, photo-induced  
luminescence, thermally induced electron emission, and photo-induced electron  
emission were measured using a relaxation "combine" designed by the authors  
espically for this investigation. The data obtained contribute to an understanding

Card 1/2

ACC NR: AT6010459	SOURCE CODE: UR/3119/65/000/003/0083/0094
AUTHORS: <u>Belkind, A. I.</u> ; <u>Kalendarev, R. I.</u> ; <u>Berdichevskaya, G. Yu.</u>	
ORG: <i>none</i>	61 60 B+1
TITLE: Electron emission and luminescence of x-irradiated <u>KCl-Ag</u> crystals 27 27	
SOURCE: <u>AN LatSSR, Institut fiziki, Radiatsionnaya fizika, no. 3, 1965.</u> <u>Ionye kristally (Ionic crystals), 83-94</u>	
TOPIC TAGS: potassium chloride, activated crystal, absorption spectrum, electron emission, luminescence, x ray irradiation, relaxation process, thermoluminescence, electrooptic effect, color center	
ABSTRACT: > To explain the relaxation process that leads to thermally stimulated luminescence, the authors have carried a comprehensive investigation of the thermal discoloring of E color centers, thermally stimulated luminescence, and thermally stimulated emission of the KCl crystal. The crystals were grown by the Kyropoulos method and colored with x rays at an exposure of 30 minutes. The optical absorption was measured with a spectrophotometer. The comprehensive measurements of the electron emission, thermoluminescence, and thermal discoloring were made with a relaxation electrooptical setup described in detail elsewhere	
Card	1/2

L 26681-66

ACC NR: AT6010459

(Izv. AN LatSSR, Ser. fiz.-tekhn., in press). Plots are given of the spectra of the stimulated absorption of the crystal and of the temperature dependence of the various measured characteristics. The results show that thermally stimulated luminescence of x-irradiated crystals of KCl-Ag at temperatures above room temperature is accompanied by thermally stimulated electron emission and has predominantly an electronic character. The thermal destruction of certain color centers at temperatures above room temperature occurs in the very narrow temperature interval and is accompanied by electron emission. This process has probably essentially an ion-electron nature. Photostimulated emission from E color centers has a photothermal character, and when other factors are excluded this determines its temperature dependence. At temperatures above room temperature the thermal discoloring of the thermally stimulated luminescence is accompanied by thermally stimulated emission in all stages. The role of different color centers in the thermally stimulated emission and thermally stimulated luminescence is described. The temperature dependence of photostimulated emission from E centers is investigated. The authors thank Ch. B. Lushchik for suggesting the topic and a detailed discussion of the results. Orig. art. has: 6 figures.

SUB CODE: 20/ ORIG REF: 030/ OTH REF: 010/ SUM. DATE: 00

Card

2/2 BLC

L 34982-66 EWT(1)/EWT(m)/EEC(k)-2/T/ENF(t)/ETI/ENP(k) IJP(c) WG/JD/JG/GG/  
ACC NR: AP6016014 AT SOURCE CODE: UR/0371/65/000/006/0011/0018

AUTHOR: Belkind, A. I. (Belkinds, A.); Kalendarev, R. I. (Kalendarjovs, R.); Tomkus, I. S. (Tomkusa, I.)

ORG: Institute of Physics, AN LatSSR (Institut fiziki AN LatSSR)

TITLE: Multipurpose relaxation apparatus for measuring the signs of elementary processes in ionic crystals subjected to ionizing radiation

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 6, 1965, 11-18

TOPIC TAGS: relaxation process, ionizing radiation, ionic crystal, electron emission, photoluminescence, photoluminescence

ABSTRACT: The authors point out that all the previously developed multipurpose installations ("relaxation combines") designed for the investigation of relaxation (transient) processes in ionic crystals exposed to ionizing radiation suffer from an important shortcoming in that they do not make it possible to determine one of the most important characteristics of the relaxation process, namely, its sign, in spite of the fact that the mechanism of the relaxation depends essentially on whether the relaxation process is electronic or of the hole-type. The authors therefore describe apparatus in which the sign of the elementary process is determined by means of thermally stimulated electron emission. An earlier version of the apparatus was already described (Tr. IFA AN ESSR, 1960, 12, 241). The apparatus is a combination of

Card 1/2

ACC NR: AP7004969

SOURCE CODE: UR/0048/66/030/009/1448/1450

AUTHOR: Bolkind, A.I.; Bichevin, V.V.; Kalendarev, R.I.; Kyaembre, Kh.F.

ORG: Physics Institute of the LatvSSR Academy of Sciences (Institut fiziki Akademii nauk LatvSSR); Institute of Physics and Astronomy of the EstSSR Academy of Sciences (Institut fiziki i astronomii Akademii nauk EstSSR)

TITLE: Further remarks concerning two mechanisms of photostimulated electron emission from ionic crystals /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 9, 1966, 1448-1450

TOPIC TAGS: luminescent crystal, alkali halide, secondary electron emission, photoelectric effect, luminescence center, F band, *STIMULATED EMISSION*, *PHOTOELECTRON*

ABSTRACT: The following two mechanisms for photostimulated electron emission from alkali halide crystals are briefly discussed: 1) direct photoionization of an F center with the escape from the crystal of the resulting energetic photoelectron) and 2) photothermal ionization of a center and escape from the crystal as a result of thermal fluctuations of the thermal electron thus produced. The potential barriers W against escape of an electron from alkali halide crystals are calculated as the difference between the photoelectric threshold and the width of the forbidden gap from relevant data in the literature. Values of W for NaCl and KCl were also calcu-

Card 1/2

S/852/62/000/000/017/020  
B106/B101

AUTHORS: Bedritskiy, N. A., Belkind, F. I., Vezhenkova, M. S.,  
Vanetsova, A. M., Gvirtz, R. A., Zavelev, G. I., Skachkov,  
N. I.

TITLE: Use of polymer materials and nonmetallic protective coatings  
in petrochemical industry

SOURCE: Primeneniye polimerov v antikorrozionnoy tekhnike. Ed. by  
I. Ya. Klinov, and P. G. Udyama, Moscow, Mashgiz, 1962, Vses.  
sovet nauchno-tekhn. obshchestv. 125 - 130

TEXT: With a view to introducing plastics as a constructional material for machines used in the petroleum industry, equipment developed by the Gipro-neftemash was examined and some mechanical plants were inspected. Polymer materials have been found suitable for units and components of petroleum installations. Plastics have been recommended for components and fittings of pumps, in accordance with plans worked out. The materials best suited are AF-4B (AG-4V) and AF-4C (AG-4S) glass-reinforced plastics. Cements based on furyl resins have been developed for reaction vessel liners in Card 1/3



Use of polymer materials ...

S/852/62/000/000/017/020  
B106/R101

petroleum industry. Varnish colors on the basis of modified furyl resins, and Bakelite varnish with fillers on a metallized base, proved suitable as anticorrosive coatings. Copolymers of polyethylene with polypropylene and fluoroplast-3 are most suitable for coatings based on powdered plastics. A coating made up of a metallized aluminum and zinc layer covered with a X8-77 (KhV-77) "perchlorvinyl" varnish has been developed to protect the springs of safety valves from corrosion, thereby lengthening the life of these springs approximately 7 times. This varnish is used also for protective coats on the inner surfaces of vessels for petroleum and petroleum products containing sulfur. As such coatings are easily destroyed by steaming, it is recommended to replace this by a mechanical wash, using an MM-3 (MM-3) machine. The Giproneftemash and neftekhimicheskiy kombinat (Petrochemical Combine) developed a new anti-corrosion treatment for telescopic gas holders. For this purpose a liquid cement based on industrial oil 12, petroleum bitumen, or the extract obtained by aircraft oil refining have been used in combination with polyisobutylenes or synthetic rubber. Eight brands of this protective liquid have been developed, which is not injurious to health. Its application is much less expensive than that of protective coatings using "perchlorvinyl" varnishes. Finally it is recommended that

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Use of polymer materials ...

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B106/B101

the production of the protective liquid for telescopic gas holders in Donets Basin, along the Volga, and in Baku should be organized; also that steel tubes having their flanges protected against corrosion by  $\Phi$ -10 (F-10) furyl varnish should be produced in one of the tube-rolling mills and that their delivery to the petroleum and chemical industries should be organized. Furthermore, it is recommended that coatings combining Bakelite varnish with inert fillers on a metallized base should be used to protect parts of the equipment and apparatus in petro-chemical and petroleum processing industries. Large plants are to be equipped with installations for repairing and processing nonmetallic material. ✓

Card 3/3

L 2968-66 EWT(d)/EWP(k)/EWP(1)  
ACCESSION NR: AP5026355

UR/0105/64/000/009/0091/0091

AUTHOR: Bel'kind, I. D.; Venikov, V. A.; Glazunov, A. A.; Grudinskiy, P. G.;  
Zhadin, K. P.; Zhebrovskiy, S. P.; Lapitskiy, V. I.; Neklyudov, B. K.; Pavlenko, V. A.  
Razevig, D. V.; Rossiyskiy, G. I.; Safonov, A. P.; Sokolov, N. I.; Soldatkina, L. A.  
Tayts, A. A.; Ul'yanov, S. A.; Fedoseyev, A. M.; Kheyster, V. A.

TITLE: Professor B. A. Teleshev on this 70th birthday and the 45th anniversary  
of his engineering, scientific, and teaching activity

SOURCE: Elektrichestvo, no. 9, 1964, 91

TOPIC TAGS: electric engineering personnel

ABSTRACT: Boris Arkad'yevich Teleshev was seventy years old 12 March 1964.  
He graduated from the electromechanical department of the Petrograd Poly-  
technic Institute in 1917 and gained the title Electrical Engineer in 1920.  
In the Union of Electric Power Stations of the Moskovskiy rayon, Teleshev  
was one of the founders of the first dispatcher service of the Moscow  
Power System, the chief dispatcher of this system, the manager of the high-  
voltage networks of the Moscow Union, the chief engineer in construction of  
the Moscow high-voltage network and of the high-voltage networks of the

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ACCESSION NR: AP5026355

Moskovskiy rayon and the chief engineer in construction of the Bobrikovsk (now Novomoskovsk) hydroelectric station. In connection with the reorganization of construction in 1931, Teleshev was transferred to Energostroy, first as chief engineer of the Moscow division and then as deputy chief of the design administration of Energostroy (now Teploelektroproyekt). In 1934, Teleshev took the post of assistant director of the Scientific Section of the Power Engineering Institute imeni Krzhizhanovskiy of the Academy of Sciences USSR and worked as the immediate assistant to Academician G. M. Krzhizhanovskiy in directing the Institute until 1946. Starting in 1923, he did scientific research work first at the Moscow Institute of Mechanics im. Lomonosov and then at the Institute of National Economy im. Plekhanov. After the founding of the Moscow Power Engineering Institute in 1930, Teleshev transferred to that Institute and worked there until 1940. Here he was Lecturer of the Department of "Central Electric Stations" and a professor in the department. He received his professorship in 1933. He was Dean of the Electric Power Department of the Institute from 1932-1935. In 1940, Teleshev was made director of the Department of Electrical Engineering of the Moscow Institute of Fine Chemical Technology where he remained until 1955. In 1944 he took part in organizing the Power Engineer-

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ing Department of the Moscow Institute of Engineering Economics im. S. Ordzhonikidze. From 1946 to the present, Teleshev has been director of the Department of "Electric Stations and Substations" and there have been two printings of his textbook on a course in "General Electrical Engineering." Teleshev has acted in a consultative capacity in plans for a great number of electrical stations and networks. He participated in the Government Consultation on the Dneper hydroelectric station im. V. I. Lenin. He has been an active member of the Scientific and Technical Society of the Power Industry for more than 20 years. He was chairman of the Moscow board of the Society from 1944 to 1951. For his service to the Society, he has been made a permanent member. In 1950 he was elected deputy in the Moscow Council of Deputies of the Workers. He has been decorated with the Order of Lenin, the Order of the Red Banner of Labor and with medals.

Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00

NR REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: EE

JPRS

*beh*  
Card 3/3

BEL'KIND, L. D. Prof.

"P. N. Yablokov, on the Fiftieth Anniversary of His Death," Moscow, 1944

BEL'KIND, Lev Davidovich, 1896-

Electric lighting fixtures and appliances 2. perer. izd. Moskva, Gos. energ. izd-vo,  
1945. 262 p. (52-36967)

TK4161.B36 1945

1ST AND 2ND POSITIONS										3RD AND 4TH POSITIONS									
PROCESSING AND PROPERTIES INDEX																			
English-Russian Polytechnical Dictionary. Edited by - L. D. Bel'kind. Moscow: Gostekhizdat. 1946. 400 pp.																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
FROM SYNONYM										FROM SYNONYM									
SYNONYM										SYNONYM									
SYNONYM										SYNONYM									



BEL'KIND, L. D.

Galileo Ferraris," Elektrichestvo, No.8, 1948

BEL'KIND, L. D.      Prof.

"In Honor of the Memory of Aleksandr Il'ich Shpakovskiy," Vest. Ak. Nauk  
SSSR, No.4, 1949.

BEL'KIND, M. D. Dr. Tech. Sci.

"Book Review on Pavel Nikolayevich Yablochkov Bibliographical Guide," Compiled by O. N. Florinskaya under the editorship of Prof. V. V. Danilevskiy, Elektrichestvo, No.9, 1949.

1. BUL'KIND, L. D. Prof.
2. USSR (600)
4. Lighting- Exhibitions - Moscow
7. First All-Union lighting-engineering exhibition in 1927.  
Elektrichestvo no. 1, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

BEL'KIND, L.D.

Petrov, Vasilli Vladimirovich, 1761-1834

One hundred and fiftieth anniversary of V.V. Petrov's experiments with the electric arc on the 29 (17) of May, 1902. Prof. L.D. Bel'kind,  
Elektrichestvo. no. 6, 1952

BELKIND, L. D.

"Historical Notes on the Discovery of the Electric Arc Phenomenon" — Notes on the electric arc; the invention of the Voltaic Pile; experiments and discoveries of foreign and Russian scientists in the field of Galvenism and Light-producing phenomena.

From the Soviet technical book, "Works on the History of Engineering" published in Moscow in 1953 by the USSR academy of Science Commission for the History of Engineering.

LX-6

HEL'KIND, L.D.

History of the discovery of electric arc phenomena. Trudy po 1st.  
tekh. no.6:15-35 '53. (MLRA 7:5)  
(Electric arc)

KIRILLIN, V.A.; PANTYUSHIN, V.S.; SIROTINSKIY, L.I.; BEL'KIND, L.D.; FEDOSEYEV,  
A.M.; UL'YANOV, S.A.; VENIKOV, V.A.; MARANCHAK, V.M.; ANISIMOVA, N.D.

Professor I.I.Solov'ev. Fiftieth anniversary of his birth. Elektrichestvo  
no.10:93 0 '53. (MLRA 6:10)

(Solov'ev, Ivan Ivanovich, 1903- )



BEL'KIND, L.D., zaslushennyi deyatel' nauki i tekhniki, doktor tekhnicheskikh nauk.

P.N. Iablochkov and his place in electrical engineering. Elektrichestvo  
no. 5:72-77 My '54. (MLRA 7:6)  
(Iablochkov, P.N., 1847-1894)

CHILIKIN, M.G., red.; BEL'KIND, L.D., red.; YELIZAROV, P.P., red.; MESHKOV, V.V., red.; NIKITIN, S.P., red.; PEREKALIN, M.A., red.; PRUZNER, S.L., red.; SHNEYBERG, Ya.A., red.; IGLITSYN, I.L., red.; ANTIK, I.V., red.; SKVORTSOV, I.M., tekhn. red.

[Fifty years of the Moscow Order of Lenin Power Engineering Institute]  
50 let Moskovskogo ordena Lenina energeticheskogo instituta imeni V.M. Molotova. Moskva, Gos. energ. izd-vo, 1955. 302 p. (MIRA 14:8)  
(Power engineering)

~~REL'KIND~~, Iay Davidovich; KONFEDERATOV, Ivan Yakovlevich; SHNEYBERG, Yakov Abramovich; KOMAROV, L.P., redaktor; ANTIK, I.V., redaktor; VORONIN, K.P., tekhnicheskii redaktor

[A history of technology] Istoriia tekhniki. Moskva, Gos. energ.  
izd-vo, 1956. 491 p. (MLRA 9:12)  
(Technology--History)

BEL'KIND, L.D., zasluzhennyy deyatel' nauki i tekhniki, professor.

Aleksandr Il'ich Shpakevskii. Elektrichestvo no.6:83-84 Je '56.  
(MIRA 9:9)

1. Moskovskiy energeticheskiy institut.  
(Shpakevskii, Aleksandr Il'ich, 1823-1881)

BEL'KIND, L.D., professor.

The 75th anniversary of the creation of the international electrical  
units. Elektrichestvo no.8:82-84 Ag '56. (MIRA 9:10)  
(Electric units)

BEL'KIND, L.D., doktor tekhnicheskikh nauk, professor.

Thomas Alva Edison. Svetotekhnika 2 no.6:29-30 N '56. (MLRA 9:12)  
(Edison, Thomas Alva, 1847-1931)

BEL'KIND, L.D.

PETROV, V.V.; GROTTGUS, T.; REYS, F.F.; STRAKHOV, P.I.; BOLOTOV, A.T.;  
TELEPNEV, V.D.; BEL'KIND, L.D., professor, redaktor; KUZNETSOVA,  
Ya.B., redaktor; TUMARKINA, N.A., tekhnicheskii redaktor

[Selected works on electricity] Izbrannye trudy po elektrichestvu.  
Pod red. i s primechaniami L.D. Bel'kinda. Moskva, Gos. izd-vo  
tekhniko-teoret. lit-ry, 1956. 299 p. (MLRA 10:4)  
(Electricity--Early works to 1850)

*BEL'KIND, L.D.*

PA - 3119

**AUTHOR:** Cand. of phys. math. sciences V.N. GOLOUSHKIN and A.A. YELISEYEV (Leningrad).  
**TITLE:** "The History of Technical Science" L.D. Bel'kind, I.Ya. Konfederatov, Ya. A. Shneyberg.  
(L.D. Bel'kind, I.Ya. Konfederatov, Ya.A. Shneyberg. Istoriya tekhniki. Russian).  
**PERIODICAL:** Elektrichestvo, 1957, Nr 5, pp 95 - 96 (U.S.S.R.)  
Received: 6 / 1957 Reviewed: 7 / 1957  
**ABSTRACT:** A textbook for universities. Chapter 1 - 3, a survey of the development of technical science from primitive to feudal times. Chapter 4, the beginning of heat energetics. Chapter 5, a short summary of the development of the science of electricity and magnetism from the early beginnings to the end of the eighteenth century. Chapter 6, the causes, characteristics and consequences of the Industrial Revolution in the last third of the eighteenth century. Chapter 7, the development of thermoenergetics after the beginning of the Industrial Revolution to the 1870's. Chapter 8 - 10, the discovery of the electric current and the development of electro-technical science up to the 1870's. Chapter 11, the development of machine construction, metallurgy, transportation system, and chemical technology in the first half of the nineteenth century. Chapter 12, the development of electrotechnics in the 1870's and '80's. Chapter 13, the development of the most

Card 1/2



BEL'KIND, L.D.

3-3-25/40

**AUTHOR:** Uvarova, L.I., Candidate of Technical Sciences  
Institute of History of Natural Science and Technique, AN USSR

**TITLE:** Excellent Text-Book on History of Technique ( Udachnyy  
uchebnik po istorii tekhniki)

**PERIODICAL:** Vestnik vysshey shkoly, March 1957, No. 3, pp. 84-88 (USSR)

**ABSTRACT:** The article represents a review on "The History of Technique  
written by L.D. Bel'kind, I.Ya. Konfederatov and Ya.I. Shney-  
berg, and published in 1956. The author comments on the  
different chapters of the book and the review, in general,  
is a favorable one. He states that the new text-book differs  
from other works on the history of technic by its object-  
ivity in evaluating the contributions made to technical pro-  
gress by the individual men of technique and science

**ASSOCIATION:** Institute of History of Natural Science and Technique, AN USSR  
(Institut istorii yestestvoznaniya i tekhniki AN SSSR)

**AVAILABLE:** Library of Congress

Card 1/1

BEL'KIND, L.D.

GOLLOUSHKIN, V.N., kandidat fiziko-matematicheskikh nauk (Leningrad);

YELISEYEV, A.A., kandidat fiziko-matematicheskikh nauk (Leningrad).

The book "History of technology" by L.D. Bel'kind, I.I.A. Konfederatov, I.A.A. Shneiberg. Reviewed by V.N. Goloushkin, A.A. Eliseev.  
Elektrichestvo no.5:95-96 My '57. (MLBA 10:6)

(Electric power) (Bel'kind, L.D.) (Konfederatov, I.I.A.)

(Shneiberg, I.A.A.)

*BEL'KIND L.D.*

GRIGOR'YAN, A.T.; ~~BEL'KIND, L.D.~~ prof., zasluzhennyy deyatel' nauki i tekhniki; SHCHERBAKOV, N.A., zasluzhennyy uchitel' shkoly RSFSR, Moskva.

"History of physics" by [prof.] P.S. Kudriavtsev. Reviewed by A.T. Grigor'ian, L.D. Bel'kind, N.A. Shcherbakov, Fiz. v shkole 17 no.6:80-86 N-D '57. (MIRA 10:12)

1. Zaveduyushchiy sektorom istorii fiziko-matematicheskikh nauk Instituta istorii yestestvoznaniya i tekhniki AN SSSR (for Grigor'yan).

(Physics--History)  
(Kudriavtsev, P.S.)

Klavdiy Ippolitovich Shenfer (Cont.)

425

electromechanics. His activities as electrical engineer, inventor and educator are reviewed. The section "Life and activities of K. I. Shenfer" was compiled by Professors L.D. Bel'kind, P. G. Grudinskiy and A.I. Moskvitin. The section "Scientific Research Work and the Inventions of Academician K. I. Shenfer" was written by Professor A.I. Moskvitin. At the end of the book there is a list of K. I. Shenfer's works and an appendix listing the patents which he received in the USSR for his inventions. No personalities are mentioned. There are no references.

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Card 2/5

Klavdiy Ippolitovich Shenfer (Cont.)

425

Role of auxiliary poles and distribution of current between brushes operation in parallel	48
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Card 4/5

BEL'KIND, L.D., doktor tekhn. nauk, prof.; MESHKOV, V.V., doktor tekhn. nauk,  
prof.

Illumination engineering education in the U.S.S.R. Svetotekhnika 3  
no.11:29-36 N '57. (MIRA 10:12)

1. Moskovskiy energeticheskiy institut.  
(Technical education) (Lighting)

*BEL'KIND L.D.*

BRON, O.B.; BEL'KIND, L.D.; SHTURMAN, G.I.; KAMENEVA, V.A.; BERGER, A.Ya.;  
CHERNICHKIN, D.S.; TISHCHENKO, N.A.; BORISNKO, N.I.; BERTINOV,  
A.I.; SINEL'NIKOV, Ye.M.

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